



7590-01-P

## **NUCLEAR REGULATORY COMMISSION**

**[Docket Nos. 50-295, 50-304, and 72-1037; NRC-2018-0243]**

### **ZionSolutions, LLC; Zion Nuclear Power Station, Units 1 and 2; Independent Spent Fuel Storage Installation**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Exemption; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing an exemption in response to a November 2, 2017, request submitted by ZionSolutions, for its general license to operate an independent spent fuel storage installation (ISFSI) at the Zion Nuclear Power Station (ZNPS). The exemption would allow ZionSolutions to deviate from the requirements in Certificate of Compliance (CoC) No. 1031, Amendment No. 6, Appendix A, Technical Specifications and Design Features for the Modular Advanced Generation Nuclear All-purpose STORage (MAGNASTOR®) System, Section 5.7, "Training Program."

**DATES:** This exemption is being issued on **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2018-0243** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2018-0243**. Address questions about Docket IDs in

Regulations.gov to Jennifer Borges; telephone: 301-287-9127; e-mail:

Jennifer.Borges@nrc.gov. For technical questions, contact the individual listed in the

**FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System**

**(ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Yen-Ju Chen, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555; telephone: 301-415-1018; e-mail: [Yen-Ju.Chen@nrc.gov](mailto:Yen-Ju.Chen@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**I. Background**

On February 13, 1998, Commonwealth Edison Company, the ZNPS licensee at that time, submitted a letter (ADAMS Accession No. ML15232A492) to the NRC certifying the permanent cessation of operations at ZNPS, Units 1 and 2. On March 9, 1998, Commonwealth Edison Company submitted a letter (ADAMS Accession No. ML15232A487) to the NRC certifying the permanent removal of fuel from the reactor vessels at ZNPS. On May 4, 2009, the NRC issued the Order (ADAMS Accession No.

ML090930037) to transfer the ownership of the permanently shut down ZNPS facility and responsibility for its decommissioning to *ZionSolutions*. This transfer was effectuated on September 1, 2010 (ADAMS Accession No. ML102290437).

*ZionSolutions* was established solely for the purpose of acquiring and decommissioning the ZNPS facility for release for unrestricted use, while transferring the spent nuclear fuel and greater-than-Class C radioactive waste to the ZNPS ISFSI. *ZionSolutions* holds Facility Operating License Nos. DPR-39 and DPR-48, which authorize possession of spent fuel from the operation of ZNPS, Units 1 and 2, in Zion, Illinois, pursuant to part 50 of title 10 of the *Code of Federal Regulations* (10 CFR), “Domestic Licensing of Production and Utilization Facilities.” The licenses provide, among other things, that the facility must comply with all applicable NRC requirements.

Consistent with subpart K of 10 CFR part 72, “General License for Storage of Spent Fuel at Power Reactor Sites,” a general license is issued for the storage of spent fuel in an ISFSI at power reactor sites to persons authorized to possess or operate nuclear power reactors under 10 CFR part 50. *ZionSolutions* is currently authorized to store spent fuel at the ZNPS ISFSI under the 10 CFR part 72 general license provisions.

The conditions of the 10 CFR part 72 general license, specifically 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), and 72.212(b)(11), require a general licensee to store spent fuel in an approved spent fuel storage cask listed in 10 CFR 72.214, and to comply with the conditions specified in the cask’s CoC. *ZionSolutions* previously registered to load and store spent fuel in MAGNASTOR® storage casks, as approved by the NRC under CoC No. 1031, Amendment No. 3 (ADAMS Accession No. ML14028A257) at the ZNPS ISFSI. In 2015, the NRC granted *ZionSolutions*’ exemption request for CoC No. 1031, Amendment No. 3. This exemption relieved *ZionSolutions*, under CoC No. 1031, Amendment No. 3, from the requirement to develop training

modules under the general licensee's systematic approach to training (SAT) that include comprehensive instructions for the operation and maintenance of the ISFSI Structures, Systems and Components (SSCs), that as defined in 10 CFR 72.3, are not important to safety (80 FR 53347). On April 17, 2017, *ZionSolutions* re-registered to load and store spent fuel in MAGNASTOR® storage casks, approved by the NRC under CoC No. 1031, Amendment No. 6 (ADAMS Accession No. ML17116A314). As a result, the 2015 exemption no longer applies and so, *ZionSolutions* has submitted this exemption request for using MAGNASTOR® storage casks under Amendment No. 6.

## **II. Request/Action**

By letter dated November 2, 2017 (ADAMS Accession No. ML17311A148), *ZionSolutions* submitted a request for exemptions from certain requirements of 10 CFR 72.212(a)(2), 72.212(b)(5), 72.212(b)(11), and 72.214. Specifically, *ZionSolutions* has requested an exemption from the requirements of CoC No. 1031, Amendment No. 6, Appendix A, Technical Specifications and Design Features for the MAGNASTOR® System, Section 5.7, "Training Program." Upon review, NRC staff has added 10 CFR 72.212(b)(3) to the exemption for the proposed action pursuant to its authority under 10 CFR 72.7. The requirements in 10 CFR 72.212(b)(3) provide that the general licensee must ensure that each cask used by the general licensee conforms to the terms, conditions, and specifications of a CoC or an amended CoC listed in 10 CFR 72.214.

Section 5.7 in Appendix A requires the following: "A training program for the MAGNASTOR® system shall be developed under the general licensee's systematic approach to training (SAT). Training modules shall include comprehensive instructions for the operation and maintenance of the MAGNASTOR® system and the independent spent fuel storage installation (ISFSI) as applicable to the status of ISFSI operations."

*ZionSolutions* has stated that its training program for the MAGNASTOR<sup>®</sup> system was developed using the SAT methods. The training modules included comprehensive instructions for the operation and maintenance of the MAGNASTOR<sup>®</sup> system. The exemption request applies only to developing a training program under SAT for operation and maintenance of ISFSI SSCs, that as defined in 10 CFR 72.3, are not important to safety. If granted, *ZionSolutions* will provide training/instructions for such SSCs in accordance with manufacturer's instructions and *ZionSolutions* approved procedures, instead of developing such training and instructions using the SAT methods.

### **III. Discussion**

Pursuant to 10 CFR 72.7, the Commission may, upon application by any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations of 10 CFR part 72 as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest.

#### **Authorized by Law**

The provisions in 10 CFR part 72 from which *ZionSolutions* is requesting an exemption require the licensee to comply with the terms, conditions, and specifications of the CoC for the approved cask model it uses. The requested exemption would also allow *ZionSolutions* to provide training/instructions in accordance with the manufacturer's instructions and *ZionSolutions* approved procedures instead of using the SAT methods for ISFSI SSCs not important to safety. Consistent with 10 CFR 72.7, the Commission may grant exemptions from the requirements of 10 CFR part 72. Additionally, as explained below, the proposed exemption will not endanger life or property or the common defense and security, and is otherwise in the public interest. Issuance of this exemption is consistent with the Atomic Energy Act of 1954, as

amended, and not otherwise inconsistent with NRC's regulations or other applicable laws. Therefore, the exemption is authorized by law.

*Will Not Endanger Life or Property or the Common Defense and Security*

If the requested exemption is granted, *ZionSolutions* would provide training/instructions in accordance with manufacturer's instructions and *ZionSolutions* approved procedures, instead of using the SAT methods, for ISFSI SSCs not important to safety. There are no changes to design or operations of the ISFSI, and no changes to safety- or security-related components. Therefore, issuance of the exemption will not endanger life or property or the common defense and security.

Additionally, in 2015, the NRC granted a similar exemption to *ZionSolutions* that only applied to using MAGNASTOR<sup>®</sup> storage casks under Amendment No. 3. In April 2017, *ZionSolutions* re-registered to load and store spent fuel in MAGNASTOR<sup>®</sup> storage casks under Amendment No. 6 and so, the 2015 exemption no longer applies. As a result, *ZionSolutions* submitted this exemption request for using MAGNASTOR<sup>®</sup> storage casks under Amendment No. 6.

*Otherwise in the Public Interest*

Approval of this exemption request will only allow *ZionSolutions* to provide training that is not developed under a SAT program for ISFSI SSCs not important to safety. The costs associated with these activities are paid from the decommissioning trust fund for ZNPS. Decommissioning trust funds are funds set aside during plant operation. These funds do not belong to the utility and are retained in the public interest solely to pay for eventual decommissioning of the plant. ZNPS is currently in a decommissioning process. As such, there is a finite amount of funds, which exists to complete decommissioning activities. With regard to the subject request, exemption from implementation of this training process relieves the need to expend

decommissioning trust fund resources on these additional training requirements.

NRC staff finds that the exemption is otherwise in the public interest because the resources saved from developing training activities under the SAT program can be utilized for other decommissioning activities. For example, it could reduce the time needed to complete decommissioning activities and reduce the risk of radiological effects to workers and the public and ameliorate any unexpected event.

#### Environmental Considerations

In reviewing this exemption request, the NRC staff also considered whether there would be any significant environmental impacts associated with the exemption. Granting this exemption from 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 72.214 only allows the licensee to develop a training program not under the SAT program for operation and maintenance of ISFSI SSCs not important to safety as defined in 10 CFR 72.3. The NRC staff has determined that this proposed action meets the categorical exclusion criteria in 10 CFR 51.22(c)(25). Specifically, the criteria under 10 CFR 51.22(c)(25)(i)-(v) are also satisfied. In its review, the NRC staff determined that approving *ZionSolutions'* request is in accordance with 10 CFR 51.22(c)(25) because the exemption request: (i) does not involve a significant hazards considerations because the requested exemption does not involve changes to the design or operation of the safety systems for the MAGNASTOR<sup>®</sup> system or ISFSI, and it would not reduce a margin of safety, nor create a new or different kind of accident from any accident previously evaluated, nor significantly increase the probability or consequences of an accident previously evaluated; (ii) would not produce a significant change in either the types or the amounts of any effluents that may be released offsite because the requested exemption neither changes the effluents nor produces additional avenues of effluent release; (iii) would not result in a significant increase in either occupational radiation

exposure or public radiation exposure because the requested exemption neither introduces new radiological hazards nor increases existing radiological hazards; (iv) would not result in a significant construction impact because there is no construction activity associated with the requested exemption; and (v) would not increase either the potential for or consequences from radiological accidents because the requested exemption does not involve any changes to the design, safety limits, or safety analysis assumptions associated with the cask system and would not create any new accident precursors. The exemption also relates solely to training requirements. Therefore this exemption is categorically excluded from further analysis under 10 CFR 51.22(c)(25)(vi)(E).

Pursuant to 10 CFR 51.22(c), no environmental impact statement or environmental assessment needs to be prepared in connection with the approval of this exemption request.

#### **IV. Conclusions**

Based on the above considerations, the NRC staff has determined, pursuant to 10 CFR 72.7, that this exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants *ZionSolutions* an exemption from 10 CFR 72.212(a)(2), 72.212(b)(3), 72.212(b)(5)(i), 72.212(b)(11), and 72.214, which state that the licensee shall comply with the terms, conditions, and specifications of the CoC, only with regard to the requirements of CoC No. 1031, Amendment No. 6, Appendix A, Technical Specifications and Design Features for the MAGNASTOR® System, Section 5.7, “Training Program.” The exemption only exempts *ZionSolutions* from the requirement to develop training modules under the SAT program that include comprehensive instructions for the operation and maintenance of the ISFSI SSCs that are not important



to safety. The SAT training requirements are still applicable to all important to safety components, as required by the CoC.

The exemption is effective upon issuance.

Dated at Rockville, Maryland, on November 7, 2018.

For the Nuclear Regulatory Commission.

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